

### Call Forwarding - Multiple Simultaneous Calls Interswitch (1052)

This feature provides the capability to specify the number of simultaneous incoming calls to forward from the same number to a hunt group or equivalent arrangement such as DID when the forwarding number and the hunt group (or equivalent) are served by a different central office switch.

Generic Name of ONA Service	Product Name	BSE or CNS
Call Forwarding - Multiple Simultaneous Calls Interswitch	AM - Busy Line Transfer of Alternate Answer	CNS
	BA - Multipath Call Forwarding	CNS
	BS - Call Forwarding Variable Multiple Simultaneous Calls	CNS
	BS - CF BL/DA Multiple Simultaneous Calls	CNS
	NX - Call Forwarding	CNS
	PB - Call Forwarding Variable	CNS
	SWB - Simultaneous Call Forwarding	CNS
	Qwcut - Call Forwarding Variable	CNS

#### FEATURE OPERATION:

The maximum number of multiple simultaneous call forwarding is Telephone Company defined on a per line basis, and on the basis of the type of call forwarding, at the time of service order entry.

#### TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

1. This feature is available in the following central office switches:

Switch Type	5ESS	DMS-100
Earliest Generic Release	5E2(2)	BCS28

2. This capability is available for the Call Forwarding Variable (CFV), Call Forwarding Busy Line (CFBL) and Call Forwarding Don't Answer (CFDA) features.
3. In the 5ESS switch the number of simultaneous calls allowed can range in size from one to ninety-nine. In the DMS-100 the size can range from 1 to 1024 via the Residential Enhanced Services.
4. In the DMS-100 switches, there may be some limitations on providing this for CFBL or CFDA depending on the current Generic program of the serving central office.
5. Reference for Call Forwarding Variable:
  - GR-580 LSSGR: Call Forwarding Variable, FSD 01-02-1401 (A Module of LSSGR, FR-64), Issue 1, June 2000 (replaces TR-TSY-000580 Issue 1 – no technical changes).
  - GR-586 LSSGR: Call Forwarding Subfeatures, FSD 01-02-1450 (A Module of FR-64) Issue 2, April 2002 (replaces TR-TSY-000586 Issue 1 & GR-586 Issue 1).

### Call Forwarding - Variable (1053)

This capability provides the ESP's client with the ability to forward all calls to a second directory number for handling. As part of the activation of the feature, an associated call is placed to the ESP's forward-to number.

Generic Name of ONA Service	Product Name	BSE or CNS
Call Forwarding - Variable	AM - Call Forwarding Variable	CNS
	BA - Call Forwarding	CNS
	BS - Call Forwarding Variable	CNS
	NX - Call Forwarding	CNS
	PB - Call Forwarding Variable	CNS
	SWB - Call Forwarding	CNS
	Qwest - Call Forwarding Variable	CNS

#### FEATURE OPERATION:

To activate call forwarding variable with the ESP's number as the forward-to number, the ESP's client dials the call forwarding variable activation code. A recall dial tone (stutter dial tone) is provided, and then the ESP's client dials the ESP's number. When the ESP answers the call, activation is complete. (If the ESP does not answer, the customer may repeat the process within a specified amount of time, e.g., one minute, and the feature will be activated.) Depending on the type of central office switch serving the ESP's client, while call forwarding variable is active, the ESP's client's line will receive a reminder ring whenever a call is forwarded.

To deactivate the feature, the ESP's client dials the call forwarding variable deactivation code.

When call forwarding variable is active, the ESP's client's ability to originate calls will be unaffected.

#### TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

1. This feature is available in the following central office switches:

Switch Type	1A ESS	5ESS	DMS-100
Earliest Generic Release	1AE8A	5E2(2)	BCS23

2. Call Forwarding Variable will override Call Forwarding Don't Answer and Call Forwarding Busy Line if all three features are active at the same time.
3. Calls may be forwarded to any telephone number including DID numbers served by the same or a different central office.

#### 4. References:

- GR-580 LSSGR: Call Forwarding Variable, FSD 01-02-1401 (A Module of LSSGR, FR-64), Issue 1, June 2000 (replaces TR-TSY-000580 Issue 1 – no technical changes).
- GR-586 LSSGR: Call Forwarding Subfeatures, FSD 01-02-1450 (A Module of LSSGR, FR-64), Issue 2, April 2002 (replaces TR-TSY-000586 Issue 1 & GR-586 Issue 1).

This service, if offered as a BSE, is associated with the Circuit Switched Line basic serving arrangement.

### Call Forwarding - Variable - Activation Without Courtesy Call (1054)

This capability provides the ESP's client with the ability to activate the call forwarding variable (forward all calls) feature without completing a call to the ESP's forward-to number.

Generic Name of ONA Service	Product Name	BSE or CNS
Call Forwarding - Variable - Activation Without Courtesy Call	AM - Call Forwarding Variable	CNS
	BA - Call Forwarding-Variable-Activation Without Courtesy Call	CNS
	BA - Call Forwarding Variable-Reminder Ring Option Inhibited	CNS
	BS - Remote Access - Call Forwarding Variable	CNS
	NX - CallAbility <sup>SM</sup> Feature Access (or Ultraforward)	CNS
	PB - Call Forwarding Variable	CNS
	Qwest - Call Forwarding Variable Without Call Completion	CNS

#### FEATURE OPERATION:

To activate call forwarding variable with the ESP's number as the forward-to number, the ESP's client either dials the call forwarding variable activation code of the form \*XX or an access number.

1. Dialing an activation code (i.e., Ameritech, Bell Atlantic, BellSouth, Pacific Bell and Qwest). A recall dial tone (stutter dial tone) is provided, and then the ESP's client inputs the ESP's number by dialing it. If the activation can be accomplished for the designated forward-to address, then the switch responds with confirmation tone.
2. Dialing an Access Number (i.e., NYNEX). The customer dials an access number (e.g., an 800 number or a regular NPA-NXX-XXXX number) from any station. An announcement is returned asking for the customer directory number and a security code. If the dialed directory number and security code match and the customer subscribes to the service a prompt to select the feature (e.g., CFV) and the specific action (i.e., activation) is returned. After making the change the customer can wait for a confirmation or use, at any time, the verify capability to determine the feature status and forward to number.

#### TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

1. This feature is available in the following central office switches:

Switch Type	5ESS
Earliest Generic Release	5E2(2)*

\* Requires Business and Residence Custom Service (BRCS).

2. When call forwarding variable is active, the ESP's client's ability to originate calls will be unaffected.

<sup>SM</sup> CallAbility is a registered service mark of NYNEX. CallAbility will be offered from selected digital switches.  
UPDATED 1/31/10

### 3. References:

- GR-586 LSSGR: Call Forwarding Subfeatures, FSD 01-02-1450 (A Module of LSSGR, FR-64), Issue 2, April 2002 (replaces TR-TSY-000586 Issue 1 & GR-586 Issue 1)
- GR-580 LSSGR: Call Forwarding Variable FSD 01-02-1401 (A Module of LSSGR, FR-64), Issue 1, June 2000 (replaces TR-TSY-000580 Issue 1 – no technical changes).

### Call Forwarding - Variable - Remote Activation/Control (1055)

This capability gives the ESP's client the ability to activate or deactivate the call forwarding variable (forward all calls) feature from remote locations other than their base station. The signaling used to activate or deactivate the call forwarding feature from the remote location must be from a Dual Tone Multi Frequency (DTMF) set.

Generic Name of ONA Service	Product Name	BSE or CNS
Call Forwarding - Variable - Remote Activation/Control	AM - Call Forwarding - Variable - Remote Activation/Control	CNS
	BA - Ultra Forward	CNS
	BS - Remote Activation of Call Forwarding	CNS
	NX - CallAbility <sup>SM</sup> Feature Access (or Ultraforward)	CNS
	PB - Call Forwarding-Variable-Remote Activation/Control	CNS
	SWB - Remote Activation of Call Forwarding	CNS
	Qwest - Remote Access Forwarding	CNS

#### FEATURE OPERATION:

The ESP's client has two options for changing the forward-to number from a remote station:

1. The remote activation of call forwarding variable feature provides a dedicated directory number that can be used for remote activation (i.e., Ameritech, Bell Atlantic, BellSouth, Pacific Bell, Southwestern Bell). A caller may place a call to this remote activation directory number from any station. Calls to this number are answered with a tone or announcement. The caller then dials, on a DTMF station from his/her remote location, his/her home (base station) directory number and a security code. If the dialed directory number and security code match and that customer subscribes to remote activation, confirmation tone followed by dial tone is returned. The customer then proceeds through the call forwarding activation/deactivation procedure as if at home (at the base station).
2. Dialing an Access Number (i.e., NYNEX, Qwest). The customer dials an access number (e.g., an 800 number or a regular NPA-NXX-XXXX number) from any station. An announcement is returned asking for the customer directory number and a security code. If the dialed directory number and security code match and the customer subscribes to remote activation, a prompt to select the feature (e.g., CFV) and the specific action (e.g., activation or deactivation) is returned. After entering their selection, the customer can wait for a confirmation or use, at any time, the verify capability to determine the feature status and the forward to number.

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<sup>SM</sup> CallAbility is a registered service mark of NYNEX. CallAbility will be offered from selected digital switches.  
UPDATED 1/31/10

## TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

1. This feature is available in the following central office switches:

Switch Type	1A ESS*	5ESS*	DMS-100*
Earliest Generic Release	1AE10	5E5	BCS28

Note: \* This service may be provided via a switching feature in the switch or via an adjunct processor.

2. Reference:

- SR-504 SPCS Capabilities and Features (A Module of LSSGR, FR-64), Issue 1, March 1996 (formerly TR-NWT-000504)

### Call Forwarding With Variable Rings (1102)

In the event that the called telephone number is not answered within a designated parameter, normally three to four rings, the Call Forwarding Don't Answer feature automatically forwards incoming calls to a predetermined, dialable telephone number served by the same central office switch, or provides inter-switch forwarding to a predetermined, dialable telephone number. This feature provides the ability to change the operative number of rings prior to call forwarding.

Generic Name of ONA Service	Product Name	BSE or CNS
Call Forwarding With Variable Rings	AM - Customer Changeable Number of Rings	CNS
	BA - Call Forwarding With Variable Rings	CNS
	NX - CallAbility <sup>SM</sup> Feature Access (or Ultraforward)	CNS

#### FEATURE OPERATION:

This feature is modified on a line basis by a service order. The number of rings (time interval) is selected at the time of the service origination or at any time the customer requests a change.

#### TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

1. This feature is available in the following central office switches:

Switch Type	1A ESS	5ESS	DMS-100
Earliest Generic Release	1AE11.03	5E6	BCS 29

2. The minimum and maximum number of rings (time interval) is limited on a per switch basis. The normal time range is 0 to 60 seconds.
3. Reference:
  - GR-1520 Ring Control, FSD 01-02-2200, Issue 2, October 1994 (component of FR-64).

<sup>SM</sup> CallAbility is a registered service mark of NYNEX. CallAbility will be offered from selected digital switches.  
UPDATED 1/31/10



### Call Waiting - Cancel (1056)

Cancel Call Waiting allows a subscriber with the Call Waiting feature to inhibit reception of the Call Waiting Tone for the duration of a single call. This prevents interruption of data traffic or interruption during an important telephone call.

Generic Name of ONA Service	Product Name	BSE or CNS
Call Waiting - Cancel	AM - Call Waiting	CNS
	BA - Tone Block	CNS
	BA - Call Waiting	CNS
	BS - Call Waiting	CNS
	NX - Cancel Call Waiting	CNS
	PB - Call Waiting	CNS
	SWB - Cancel Call Waiting	CNS
	Qwest - Call Waiting	CNS

#### FEATURE OPERATION:

1. When a subscriber with the Call Waiting Feature wishes to cancel the Call Waiting feature during the call, they must depress the receiver button, listen for dial tone, and dial Star (\*) plus 70 for touchtone (DTMF) phones or dial 1170 for rotary dial (DP) phones (Cancel Call Waiting Code) for a POTS line or a Business Group line. After dialing the code, the subscriber listens for confirmation tone and is then automatically reconnected to the call in progress. The Call Waiting feature has then been deactivated and no interruptions are allowed during the call.
2. When a subscriber with the Call Waiting Feature wishes to cancel the Call Waiting Feature prior to making a call, they must lift the receiver, listen for dial tone, and dial Star (\*) plus 70 for touchtone (DTMF) phones or dial 1170 for rotary (DP) phones (Cancel Call Waiting Code) for a POTS line or a Business Group line. After dialing the code, the subscriber listens for confirmation tone followed by dial tone. The Call Waiting Feature has then been deactivated and no interruptions are allowed during the call.
3. Call Waiting will be re-established when the call is terminated.

#### TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

1. This feature is available in the following central office switches:

Switch Type	1A ESS	5ESS	DMS-100
Earliest Generic Release	1AE8A	5E2(2)	BCS24

2. Call Forwarding Variable is compatible with Call Waiting and Cancel Call Waiting service.
3. Call Hold and Call Waiting with the Cancel option can be assigned to the same line.

4. Call Pickup and Call Waiting with the Cancel option can be assigned to the same line.
5. Speed Calling and Call Waiting with the Cancel option can be assigned to the same line.
6. Call Waiting with the Cancel option may be assigned to either or both parties on a Two-Party Line.
7. Cancel Call Waiting may not be provided on the following lines:
  - Coin Lines
  - Denied Originating Lines
  - Four and Eight Party Lines
  - PBX Lines
  - Hotel/Motel Calls Routed to TSPS
8. References:
  - GR-572 LSSGR: Cancel Call Waiting. FSD 01-02-1204 (A Module of LSSGR, FR-64), Issue 1, June 2000 (replaces TR-TSY-000572 Issue 1 & Revision 1 – no technical changes).

This service, if offered as a BSE, is associated with the Circuit Switched Line basic serving arrangement.

### Called Directory Number Delivery via DID (1057)

This service allows the central office switch to deliver all or part of the destination address to the ESP at the time the call is established. Usually, the destination address delivered is the same as the number originally dialed. When number translations have occurred, e.g., 800 calls, the DID number delivered is not the called number.

Generic Name of ONA Service	Product Name	BSE or CNS
Called Directory Number Delivery via DID	AM - Direct Inward Dialing Trunk Termination	BSE
	BA - Direct Inward Dialing Service	BSE
	BS - Direct Inward Dialing	BSE
	NX - DID, DNIS on 800	BSE or CNS
	PB - Direct Inward Dial Service	BSE
	SWB - Direct Inward Dialing	BSE
	Qwest - Called Directory Number Delivery (DID)	BSE

#### FEATURE OPERATION:

1. Customers order this service from the telephone company. A client calling a customer is generally unaware that the customer has Direct Inward Dialing (DID) service. The client is not required to perform any additional actions to have the call delivered via a DID trunk group.
2. In a PBX type application, the service allows a client to reach a specific PBX station without the assistance of an attendant or other intermediary.
3. The number of digits forwarded by the central office switch is determined at the time the service is ordered. The customer must also arrange for a block of telephone numbers to be associated with the DID trunks.

#### TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

1. This feature is available in the following central office switches:

Switch Type	1A ESS	5ESS	DMS-100
Earliest Generic Release	1AE8A	5E2(2)	BCS17

2. A customer may elect to receive Dial Pulse or Dual Tone Multifrequency (DTMF) signaling when using analog facilities. Some companies may offer Multifrequency (MF) outpulsing/signaling to the ESP community. If both the central office switch and the customer's equipment are digital, the customer may be able to order DID trunks with digital connectivity.
3. This service is an incoming service (to the customer's CPE) and is typically a "trunk side" service.

#### 4. References:

- GR-524 LSSGR: Attendant and Customer Switching System Features and Customer Interfaces, FSD 04-01-0000 through 04-05-0000 (A Module of LSSGR, FR-64), Issue 1, June 2000 (replaces TR-TSY-000524 Issue 2 & Revision 1 – no technical changes).

This service, if offered as a BSE, may be associated with the Circuit Switched Line or Trunk basic serving arrangement, as stated in the individual ONA plans.

### Called Directory Number Delivery via 900NXX (1059)

This capability will provide the ESP with the directory number that terminated the call via a circuit switched trunk access arrangement. The method used is 900NXX dialing and Feature Group D (FG D) signaling protocol. The called directory number information (900NXXXXXX) is included within the FG D signaling protocol. The assignment of a 900NXX number to each ESP provides the ESP the capability to assign up to 9999 line numbers. With this capability, the FG D signaling protocol would deliver the specific dialed line number (900NXXXXXX) to the ESP.

Generic Name of ONA Service	Product Name	BSE or CNS
Called Directory Number Delivery via 900NXX	AM - Called Directory Number Delivery	BSE
	BA - 900 Access Service	BSE
	NX - 900 Access Service	BSE
	SWB - Circuit Switched - Trunk Side Alternative D Basic Serving Arrangement (BSA-D)	BSA *

#### FEATURE OPERATION:

This feature is activated/deactivated by an Access Service Order.

#### TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

1. This feature is available in the following central office switches:

Switch Type	1A ESS	5ESS	DMS-100
Earliest Generic Release	1AE8A	5E2(2)	BCS17

2. The service is LATA wide and can be accessed either at the tandem or at the end office. Both access arrangements must be properly equipped with Feature Group D protocol trunks to the 900NXX serving carrier.
3. Calls that originate from non-FG D protocol offices will be handed off to the ESP at the access tandem using the FG D protocol.
4. References:
  - Feature Group D protocol is described in GR-690 Exchange Access Interconnection FSD 20-24-0000 (A Module of LSSGR, FR-64), Issue 2, September 1995, Revision 1 - November 1996.
  - GR-334 Switched Access Service: Transmission Parameter Limits and Interface Combinations, Issue 1, July 1994.

This service is associated with the Circuit Switched Trunk basic serving arrangement.

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\* For Southwestern Bell Telephone Company, this is an inherent feature of Circuit Switched Trunk Side Alternative D Basic Serving Arrangement (BSA-D) service.

### Calling Billing Number Delivery - FG B Protocol (1060)

This arrangement allows the ESP to receive the billing number (ANI- 7 digit) of the party who originated the call to the ESP with the signaling information that is transmitted to the ESP during call setup. This signaling information will be transmitted using a Feature Group B protocol over a direct circuit switched trunk side connection.

Generic Name of ONA Service	Product Name	BSE or CNS
Calling Billing Number Delivery - FG B Protocol	BA - Automatic Number Identification (ANI)	BSE
	BS - Called/Calling Number Information- ANI Via FG B/TSBSA Teehcnical Option 1 *	BSE
	NX - Automatic Number Identification	BSE
	Qwest - Automatic Number Identification	BSE

#### FEATURE OPERATION:

1. An ESP's client will dial (1)+950+0XXX or (1)+950+1XXX to reach the ESP. The XXX is the ESP's Carrier Identification Code (CIC).
2. ESP equipment may need to prompt the end user (e.g., via second dial tone) for additional information in order for the ESP to process the call.

#### TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

1. This feature is available in the following central office switches:

Switch Type	1A ESS	5ESS	DMS-100
Earliest Generic Release	1AE8A	5E2(2)	BCS19

2. ESPs that purchase trunk side access service utilizing FG B protocol will be assigned a Carrier Identification Code (CIC) and must establish a Point of Presence (POP) in each LATA served. The CIC code will be the same for both FG B protocol and FG D protocol. However, in the future, CIC codes for trunk side access services utilizing FG B protocol and FG D protocol may be assigned independently.
3. ESPs must order direct trunks between each FG B protocol end office switch they wish to serve and their POP. The ANI optional feature must be ordered on all trunks. (Calling Billing Number Delivery- FG B Protocol cannot be provided using tandem arrangements, as the tandems utilizing FG B protocol do not have the ability to pass ANI.)
4. The ANI data forwarded to the ESP consists of the seven (7) digit billing number of the station originating the call and one ANI information digit.

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\* BellSouth will only offer this service on an interLATA basis.

5. Destination code information, such as the called number, may be transmitted to the ESP from rotary stations provided the ESP orders the Rotary Dial Station Signaling option. This feature is available only from suitably equipped end offices.
6. Calls may be forwarded to ESPs using call forwarding services.
7. This service may be available in other switches equipped for Equal Access service.
8. References:
  - GR-698 LSSGR: Feature Group B FSD 20-24-0300 (A Module of LSSGR, FR-64), Issue 1, June 2000 (replaces TR-TSY-000698 Issue 1 & Revision 1 – no technical changes).
  - TR-NPL-000175 Compatibility Information for Feature Group B Switched Access Service, Issue 1, July 1985. [No longer listed.]
  - GR-334 Switched Access Service: Transmission Parameter Limits and Interface Combinations, Issue 1, July 1994.

This service, if offered as a BSE, is associated with the Circuit Switched Trunk basic serving arrangement.

### Calling Billing Number Delivery - FG D Protocol (1061)

This arrangement allows the ESP to receive the billing number (ANI- 10 digit) of the party who originated the call to the ESP with the signaling information that is transmitted to the ESP during call setup. This signaling information will be transmitted using a Feature Group D protocol over a circuit switched trunk side connection.

Generic Name of ONA Service	Product Name	BSE or CNS
Calling Billing Number Delivery - FG D Protocol	AM - Calling Billing Number Delivery (i.e., ANI)	BSE
	BA - Automatic Number Identification (ANI)	BSE
	BS - ANI	BSE
	NX - Automatic Number Identification	BSE
	PB - Automatic Number Identification	BSE
	SWB - Automatic Number Identification	BSE
	Qwest - Automatic Number Identification	BSE

#### FEATURE OPERATION:

1. An ESP's client that is presubscribed to that ESP will dial (1) + 7/10 digits to reach the ESP. If the ESP's client chooses another carrier as his/her presubscribed carrier, the ESP's client would dial 10XXX (and/or 101XXXX) + (1) + 7/10 digits or 10XXX (and/or 101XXXX)+# to reach the ESP. The XXX (and/or XXXX) would be the ESP's Carrier Identification Code (CIC).

#### TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

1. ESPs that purchase trunk side access service utilizing FG D protocol will be assigned a Carrier Identification Code (CIC) and must establish a Point of Presence (POP) in each LATA served.
2. ESPs may order (1) direct trunks between each equal access switch and the ESP's POP, or (2) trunks between FG D protocol equal access tandems and the ESP's POP, or (3) a combination of direct and tandem trunks. The trunks must be ordered with the ANI feature where ANI is an optional feature, in order for the ESP to receive the calling billing number.
3. Calls may be forwarded to the ESP using call forwarding services.
4. This feature is available in the following central office switches:

Switch Type	1A ESS	5ESS	DMS-100
Earliest Generic Release	1AE8A	5E2(2)	BCS19

5. The service may be available in other switches equipped for Equal Access service.



6. This service may be available with CCS7 protocol.

7. References:

- GR-690 Exchange Access Interconnection FSD 20-24-0000 (A Module of LSSGR, FR-64), Issue 2, September 1995, Rev 1 - November 1996.
- TR-NPL-000258 Compatibility Information for Feature Group D Switched Access Service, Issue 1, October 1985.
- GR-334 Switched Access Service: Transmission Parameter Limits and Interface Combinations, Issue 1, July 1994.

8. References for CCS7:

- GR-905 Common Channel Signaling Network Interface Specification (CCSNIS) Supporting Network Interconnection, Message Transfer Part (MTP), and ISDN User Part (ISDNUP), Issue 11 – December 2008 (replaces GR-905, Issue 10).
- GR-394 Switching System Generic Requirements for Interexchange Carrier Interconnection (ICI) Using the Integrated Services Digital Network User Part (ISDNUP), (A Module of LSSGR, FR-64), Issue 8 –November 2007 (replaces Issue 7).

This service, if offered as a BSE, is associated with the Circuit Switched Trunk basic serving arrangement.

### Calling Directory Number Delivery - via ICLID (1064)

Calling Directory Number Delivery via Calling Number Delivery (CND) (CLASS<sup>SM</sup>) allows the subscriber to receive the telephone number of the caller prior to answering the call.

When Calling Number Delivery (CND) is assigned to the subscriber's line, the directory number of the calling party, the time of the call and the date are sent to, and displayed on, the called party's Customer Premises Equipment (CPE) during the first long silent interval of the ringing cycle (between the first and second rings). If the calling party is outside the area in which the service works, the called party's CPE will receive an "O" which in most cases is displayed as "Out of Area" (actual display is the function of the CPE used).

Generic Name of ONA Service	Product Name	BSE or CNS
Calling Directory Number Delivery- via ICLID	AM - Caller ID	CNS
	AM - Caller ID With Call Waiting	CNS
	BA - Caller ID	BSE
	BS - Caller ID	CNS
	NX - Caller ID Number Only	CNS
	PB - Caller ID	BSE
	SWB - Caller ID	CNS
	Qwest - Caller Identification - Number	BSE

#### FEATURE OPERATION:

The customer must contact the telephone company to have the Calling Directory Number Delivery service activated. Once the translation changes have been made to the customer's line and the customer has installed the appropriate CPE, the calling number, date and time of the call is automatically transmitted to the customer's CPE. If the service is offered on a usage-sensitive basis, the customer has the option of turning the display device on and off by using the service access codes \*65 or 1165 for activation and \*85 or 1185 for deactivation. If the service is offered on a flat rate basis, the display device cannot be turned on and off using the access codes.

#### TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

1. This feature is available in the following central office switches:

Switch Type	1A ESS	5ESS	DMS-100
Earliest Generic Release	1AE10*	5E5	BCS28

NOTE: \* Available on intraoffice basis with generic 1AE9.

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<sup>SM</sup> CLASS is a service mark of Telcordia Technologies, Inc. (formerly Bellcore)

2. The serving central office switch must be equipped with the appropriate CLASS<sup>SM</sup> Calling Number Delivery software and hardware. In order for this service to work on an interoffice basis, both the originating and terminating switches must be equipped with the CLASS<sup>SM</sup> and the Common Channel Signaling (CCS) SS7 software and hardware and the interoffice trunks must be converted to SS7.
3. This service is a "line" service and therefore cannot be assigned to subscribers with trunk terminations (i.e., PBX with DID). This service is also unavailable to multiparty lines, coin terminating and 1A ESS remote switching system (RSS) lines. This service requires on-hook transmission, therefore there may be instances (MFT, Channel Banks) where this service may not work. An exception is Ameritech's offering of "Caller ID With Call Waiting."
4. The subscriber must have a station set or a display device adjunct to the station set capable of receiving and displaying the calling directory number. The subscriber is responsible for the purchase and installation of this display device.
5. If the subscriber answers the telephone during the first ringing interval, the calling directory number will not be displayed at the CPE.
6. References:
  - GR-31 LSSGR: CLASS<sup>SM</sup> Feature: Calling Number Delivery, FSD 01-02-1051 (A Module of LSSGR, FR-64), Issue 1, June 2000 (replaces TR-NWT-000031 Issue 4 – no technical changes).
  - GR-30 LSSGR Voiceband Data Transmission Interface Section 6.6 (A Module of LSSGR, FR-64), Issue 2, December 1998 (replaces TR-NWT-000030, Issue 2).

This service, if offered as a BSE, is associated with the Circuit Switched Line basic serving arrangement.

### Carrier Selection On Reverse Charge (1065)

800 Service is a telecommunications service in which any charges for the call are paid by the called party rather than the calling party. Dial access for the service is in the form of 1-800-NXX-XXXX. [Note: 888, 877, 866 and 855 are now equivalent to 800.]

The 800 Service subscriber purchases service from particular areas and incurs all the costs associated with processing calls for the calling parties. The unique reverse billing feature provides the calling party with "free" calls, while allowing the 800 Service customer, the called party, to encourage calls from parties of choice.

Generic Name of ONA Service	Product Name	BSE or CNS
Carrier Selection On Reverse Charge	AM - 800 Dialing Alternative	BSA *
	BA - Toll Free Database Access Service	BSE
	BA - 800 Toll Free Service	BSE
	BS - 800 Service	BSA
	NX - 800 Database Access Service	BSE
	PB - 800 Access Service	BSA **
	Qwest - 800 Service	BSA *

### FEATURE OPERATION:

BOC 800 Service provides for the assignment of a single ten digit 800 Number (i.e., 800+XXX+XXXX) to the customer which can be used on a statewide basis for intraLATA calling. The service can be selected for an area consisting of less than an entire state by specifying a desired area of service.

The basic BOC 800 Service to an individual customer consists of the following capabilities:

1. The assignment of a single 800 number, which allows but does not require the subscriber to use one 800 number nationwide.
2. A termination that connects a location specified by the customer to the BOC's switched facilities.
3. Access to a single exchange or interexchange carrier for intraLATA transport.
4. Carrier selection.
5. Customer defined area of service.
6. The offering of national directory assistance listings to be passed to the national directory assistance provider.

\* For Ameritech and Qwest, this is a Circuit Switched Trunk Type BSA alternative.

\*\* For Pacific Bell, this is a Circuit Switched Line Type BSA alternative.

## TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

## 1. References:

- SR-2275 Telcordia Notes on the Networks, Issue 4, October 2000 (replaces SR-TSV-002275, Issue 3)
- GR-508 LSSGR: Automatic Message Accounting (AMA) Section 8, (A module of LSSGR FR-64) Issue 4, September 2003, (replaces TR-NWT-000508, Issue 3 & GR-508, Issue 3).
- GR-533 LSSGR: Database Services - Service Switching Points, Toll Free Service (FSD 31-01-0000), (A Module of LSSGR, FR-64), Issue 2, June 2001 (replaces TR-NWT-000533 Issue 3).
- Qwest document 77318 Compatibility Information for 800 Service Switched Access, May 1986.

This service, if offered as a BSE, is associated with the Circuit Switched Line basic serving arrangement.

### Coin Phone With Post Dialing Tone Capability (1062)

This capability provides for the coin phone key pad to remain enabled throughout a call. An ESP's client can then transmit information to the ESP utilizing DTMF signaling. Some non-LEC coin stations are not connected to Central Office lines with a coin class of service and so are not treated as "coin" telephones from a network standpoint.

Generic Name of ONA Service	Product Name	BSE or CNS
Coin Phone With Post Dialing Tone Capability	BA - Public Telephone Service	CNS *
	BA – Public Communication Service	CNS
	BA – Public Telephone Lines (PTL)	CNS
	BA – Pay Telephone Line	CNS
	BS - Post Dial DTMF Signaling From Coin Phone	BSA *
	NX - Post Dialing DTMF Signaling From Pay Station	CNS *
	SWB - Post Dialing Capability (Public Telephone)	CNS
	Qwest - Semipublic and Shared Coin Lines	BSA *

\* This network capability is an inherent function of LEC coin telephone service.

#### FEATURE OPERATION:

(This discussion applies to Dial Tone First Coin Stations.)

1. A coin station user goes off-hook and dials a local 7 digit number. At some time prior to the dialing of the last digit, the user deposits enough coins to cover the Initial Period charge. At this time, the coin phone key pad is powered by the loop current flow.
2. After receipt of the last digit, (assuming the call is not "911", "0", 1+, etc.), the loop current flow is interrupted so that the Central Office can test for the Initial Period deposit. The key pad is disabled at this time.
3. After it is determined that the initial deposit is present, and after the call is set up, loop current is reapplied to the circuit, enabling the keypad again. The keypad remains enabled throughout the remainder of the call.

#### TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

1. This feature is available in the following central office switches:

Switch Type	1A ESS	5ESS	DMS-100
Earliest Generic Release	1AE8A	5E2	BCS19

2. References:

- GR-181 Dual-Tone Multifrequency Receiver Generic Requirements for End-To-End Signaling Over Tandem-Switched Voice Links, Issue 1, July 2003 (replaces TR-TSY-000181, Issue 1 – no technical changes).
- TR-TSY-000450 Generic Requirements for Public Telephone Dual Tone Multifreq. Dial (DTMF), Iss. 1, June 1989 [No longer listed.]
- GR-528 Public Telecommunications Service FSD 10-01-0000, Issue 1, December 1994 (replaces TR-TSY-000528, Issue 2).

### Customer Originated Trace (1066)

Customer Originated Trace (CLASS<sup>SM</sup>) capability allows a customer to have the last incoming number automatically traced. The results of the trace are not provided directly to the customer; they are output to an authorized agency. This capability requires that both the originating and terminating central offices be equipped with Common Channel Signaling (CCS) SS7 and be interconnected by SS7.

Generic Name of ONA Service	Product Name	BSE or CNS
Customer Originated Trace	AM - Call Trace	CNS
	BA - Call Trace	CNS
	BS - Call Tracing	CNS
	NX - Call Trace	CNS
	PB - Call Trace	CNS
	SWB - Call Trace <sup>SM</sup>	CNS
	Qwest - Call Trace	CNS

### FEATURE OPERATION:

Depending on the Local Exchange Company's implementation of this service, the customer either contacts the telephone company to request the service, which requires a service order, or the service is automatically available on an office basis to everyone. In either scenario, once the appropriate translations are done to the line(s), the customer can initiate a trace of the last incoming call (after hanging up) by going offhook and dialing \*57 (1157 for rotary dial). The customer then receives one of the following type announcements depending on how the service is implemented:

- One-Level Announcement

If the calling number is valid, an announcement is given informing the customer that the trace was successful and instructs the customer what to do next. If the calling number is invalid, an announcement is given indicating why the trace cannot be done and dial tone is returned to the customer.

- Two-Level Announcements

The customer receives an announcement explaining that they have accessed the Customer Originated Trace service. Then, if the calling number is valid, the customer is instructed to dial "1" if they wish to activate the service and trace the call or to hang up to abort. If the customer dials "1", an announcement is given informing the customer that the trace was successful and instructs the customer what to do next. If the calling number is

<sup>SM</sup> CLASS is a service mark of Telcordia Technologies, Inc. (formerly Bellcore)

<sup>SM</sup> Call Trace is a service mark of Southwestern Bell Telephone Company.

invalid, an announcement is given indicating why the trace cannot be performed and dial tone is returned to the customer.

The results of the trace are not given to the customer. They are automatically transmitted to an agency (determined by the telephone company), where the information is stored and available for further action.

#### TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

1. This feature is available in the following central office switches:

Switch Type	1A ESS	5ESS	DMS-100
Earliest Generic Release	1AE10*	5E5	BCS28

Note: \* Available on an intraoffice basis with 1AE9.

2. The serving central office switch must be equipped with the appropriate CLASS<sup>SM</sup> Customer Originated Trace software and hardware. In order for this service to work on an interoffice basis, both the originating and terminating switches must be equipped with the CLASS<sup>SM</sup> and the Common Channel Signaling (CCS) SS7 software and hardware and the interoffice trunks must be converted to SS7. This service is only offered on an intraLATA basis at this time.
3. This is a "line" service and therefore cannot be assigned to subscribers with trunk terminations (i.e., PBX with DID). This service is also unavailable to multiparty lines and 1A ESS remote switching system (RSS) lines. In addition, this service is unavailable to customers that have denied originating and denied terminating treatment.
4. The information delivered to the authorized agency includes: the called telephone number, the calling telephone number, the date, and the time of the call.
5. If the customer has Call Waiting and if the Call Waiting is activated during a call, the call waited number is the number that will be traced if Customer Originated Trace is activated.
6. References:
  - GR-216 LSSGR: CLASS<sup>SM</sup> Feature: Customer Originated Trace, FSD 01-02-1052 (A Module of LSSGR, FR-64), Issue 2, April 2002 (replaces TR-TSY-000216 Issue 2 & Revision 1 & Bulletin 1 & GR-216 Issue 1).

This service, if offered as a BSE, is associated with the Circuit Switched Line basic serving arrangement.



### Cut Off On Disconnect (1095)

This capability provides a disconnect signal to the terminating party on a call, to indicate when the originating party has hung up. The benefit of this feature is that CPE equipment, such as answering machines, can detect the disconnect, and will not record messages consisting of "Dial Tone."

Generic Name of ONA Service	Product Name	BSE or CNS
Cut Off On Disconnect	BA - Business Individual Line	BSA *
	BS - Voice Grade Line - Circuit Switched	BSA *
	NX - Circuit Switched Line	BSA *

#### FEATURE OPERATION:

1. A call is placed to a line that has the "Cutoff On Disconnect" feature. After a predetermined number of rings, during which the called party does not answer, the called party's answering machine is connected to the call to record a message.
2. The calling party, wishing to speak with a person, decides not to leave a message, and hangs up. The terminating office sees an off-hook condition generated by the answering machine, and begins calling party disconnect timing.
3. After expiration of the timing interval, if the called party (answering machine) is still offhook, and the line does not have the "Cutoff On Disconnect" feature, Dial Tone is applied to the line, which the answering machine records until the Central Office times out and begins Permanent Signal Treatment. However, if the line is equipped with the "Cutoff On Disconnect" feature, the Central Office supplies a 500 ms open to the line before applying Dial Tone. The answering machine can then recognize that the calling party has disconnected, and can drop the call before it starts to record Dial Tone.

#### TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

1. This feature is available in the following central office switches:

Switch Type	DMS-100
Earliest Generic Release	BCS25

2. The DMS-100 requires NTX901AA, F2653 - COD Option On An Office Basis and BCS25. The feature is assignable on both a line option and an office-wide basis.

References: not available.

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\* This service is inherent in the Circuit Switched Line basic serving arrangement in certain Central Offices.